

ABSTRACT

1
2 Ultrasonic signals are used to transmit sounds from a modulated ultrasonic generator to
3 other locations from which the sounds appear to emanate. In particular, an ultrasonic carrier is
4 modulated with an audio signal and demodulated on passage through the atmosphere. The
5 carrier frequencies are substantially higher than those of prior systems, e.g., at least 60 kHz, and
6 the modulation products thus have frequencies which are well above the audible range of
7 humans; as a result, these signals are likely harmless to individuals who are within the ultrasonic
8 fields of the system. The signals may be steered to moving locations, and various measures are
9 taken to minimize distortion and maximize efficiency.

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